

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A hydrodynamic bearing system comprising:

a shaft;

a bearing sleeve;

at least one bearing member mounted on an outer surface of said shaft;

a bearing gap formed within said at least one bearing member; and

a fluid trap member located outside said bearing gap,

wherein said fluid trap member is integrated into said at least one bearing member and wherein a fluid trapping cavity is formed outside said bearing gap between said fluid trap member and a surface of said at least one bearing member.

2. (Currently Amended) The hydrodynamic bearing system according to Claim 1, wherein said fluid trap member is injection molded from a material having surface energy lower than surface energy of a lubricating fluid ~~low surface tension~~.

3. (Original) The hydrodynamic bearing system according to Claim 2, wherein said material is fluorocarbon.

4. (Currently Amended) The hydrodynamic bearing system according to Claim 1, wherein said fluid trap member is machined from a material having surface energy lower than surface energy of a lubricating fluid ~~low surface tension~~.

5. (Original) The hydrodynamic bearing system according to Claim 4, wherein said material is fluorocarbon.

6. (Original) The hydrodynamic bearing system according to Claim 1, wherein said at least one bearing member is a conical bearing member.

7. (Original) The hydrodynamic bearing system according to Claim 1, wherein said fluid trap member comprises a sleeve portion and a disc portion, said sleeve portion being pressed into said at least one bearing member.

8. (Original) The hydrodynamic bearing system according to Claim 1 further comprising a shield enclosing an opening in said bearing sleeve, said shield comprising a pair of oil fill holes.

9. (Original) The hydrodynamic bearing system according to Claim 8, wherein said fluid trap member further comprises a pair of springs, said pair of springs being axially aligned with said pair of oil fill holes.

10. (Currently Amended) A spindle motor having a hydrodynamic bearing system, said hydrodynamic bearing system comprising:

a shaft;

a bearing sleeve;

at least one bearing member mounted on an outer surface of said shaft;

a bearing gap formed within said at least one bearing member; and

a fluid trap member located outside said bearing gap,

wherein said fluid trap member is integrated into said at least one bearing member and wherein a fluid trapping cavity is formed outside said bearing gap between said fluid trap member and a surface of said at least one bearing member.

11. (Currently Amended) The spindle motor according to Claim 10, wherein said fluid trap member is injection molded from a material having surface energy lower than surface energy of a lubricating fluid ~~low surface tension~~.

12. (Original) The hydrodynamic bearing system according to Claim 11, wherein said material is fluorocarbon.

13. (Currently Amended) The spindle motor according to Claim 10, wherein said fluid trap member is machined from a material having surface energy lower than surface energy of a lubricating fluid ~~low surface tension~~.

14. (Original) The hydrodynamic bearing system according to Claim 13, wherein said material is fluorocarbon.

15. (Original) The spindle motor according to Claim 10, wherein said at least one bearing member is a conical bearing member.

16. (Original) The spindle motor according to Claim 10, wherein said fluid trap member comprises a sleeve portion and a disc portion, said sleeve portion being pressed into said at least one bearing member.

17. (Original) The spindle motor according to Claim 10 further comprising a shield enclosing an opening in said bearing sleeve, said shield comprising a pair of oil fill holes.

18. (Original) The spindle motor according to Claim 17, wherein said fluid trap member further comprises a pair of sparings, said pair of sparings being axially aligned with said pair of oil fill holes.

19. (Currently Amended) A hydrodynamic bearing system, comprising:

a shaft;

a bearing sleeve; and

a bearing member having a bearing gap formed therein,

wherein said bearing member further comprises a fluid trapping portion formed outside said bearing gap, said fluid trapping portion extending from a surface of said bearing member and forming a fluid trapping cavity with said surface, and wherein said fluid trapping portion comprises a coating of a ~~low surface tension~~ material having surface energy lower than surface energy of a lubricating fluid.

20. (Currently Amended) The hydrodynamic bearing system according to Claim 19, wherein said ~~low surface tension~~ material is fluorocarbon.

21. (Original) The hydrodynamic bearing system according to Claim 19, wherein said at least one bearing member is a conical bearing member.

22. (Original) The hydrodynamic bearing system according to Claim 19 further comprising a shield enclosing an opening in said bearing sleeve, said shield comprising a pair of oil fill holes.

23. (Currently Amended) A spindle motor having a hydrodynamic bearing system, said hydrodynamic bearing system comprising:

a shaft;

a bearing sleeve; and

a bearing member having a bearing gap formed therein,

wherein said bearing member further comprises a fluid trapping portion formed outside said bearing gap, said fluid trapping portion extending from a surface of said bearing member and forming a fluid trapping cavity with said surface, and wherein said fluid trapping portion comprises a coating of a ~~low surface tension~~ material having surface energy lower than surface energy of a lubricating fluid.

24. (Currently Amended) The spindle motor according to Claim 23, wherein said ~~low surface tension~~ material is fluorocarbon.

25. (Original) The spindle motor according to Claim 23, wherein said at least one bearing member is a conical bearing member.

26. (Original) The spindle motor according to Claim 23 further comprising a shield enclosing an opening in said bearing sleeve, said shield comprising a pair of oil fill holes.

27. (Original) The hydrodynamic bearing system according to Claim 26, wherein said fluid trap portion further comprises a pair of sparings, said pair of sparings being axially aligned with said pair of oil fill holes.